the astrogram

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National Aeronautics and Space Administration • Ames Research Center, Moffett Field, California

Winovich Explorer Advisor

A two-month search for a new Advisor for the Ames Astronautics Post No. 12 has ended. Warren Winovich of the High-Enthalpy Research Branch volunteered to take over the responsibility of this activity and has begun working with the group.

The Explorer Post sponsored by the Center is in the Stanford Area Council of Palo Alto, but interested applicants from outside the Council area are welcome to apply for membership. Young people (both male and female) between 14 and 17 years of age may participate in this program. Meetings are held bimonthly at the Center.

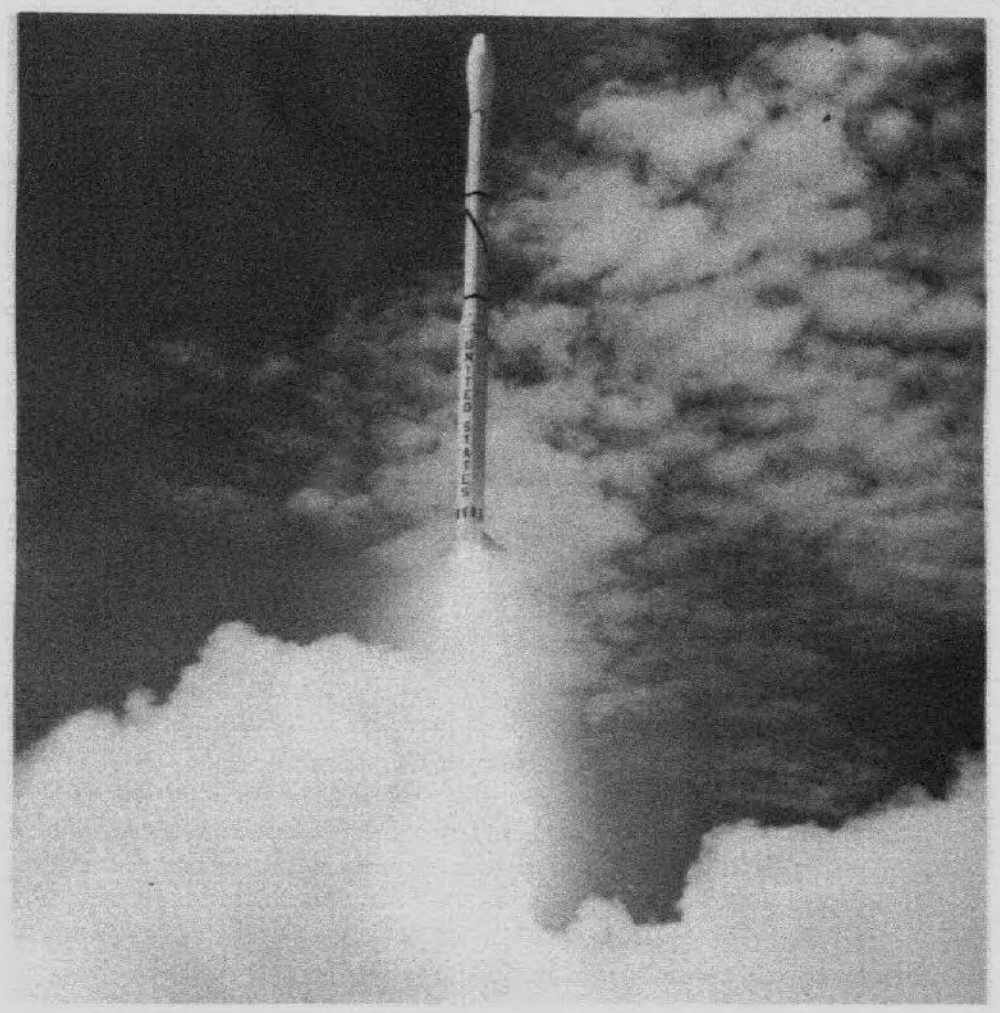
Mr. Winovich has many plans for the ensuing year. During that time the Explorers will have an opportunity to cover scientific areas of endeavor presently underway at the Center. "We want to get the Explorers involved", said Mr. Winovich. "First, there will be a general, introductory lecture on a specific subject by an Ames researcher, then the Explorers will be given an opportunity to work on an experiment under the supervision of an engineer." He added that there will be several scientific subjects presented to the group, including aerodynamics, V/STOL, physics, and the like. "We want to get their interest aroused even if they don't fully understand the more technical aspects. At the least, they will have heard about space technology and how it can be related to present day problems of society." He went on to say that, "special emphasis will be placed on the spin-off benefits of the space program, and we will continue in the same pattern established during the past two years by Bill Page, the former Advisor.

PROJECT

A personal project Mr. Winovich will explain is the development of an electric car. He and a team of fellow research engineers have been working independently on this type of vehicle and have progressed to the point of designing the car using aerodynamics to optimize performance. The Explorers will have an opportunity to develop and test a similar vehicle and its components as one of their projects.

The forthcoming year will be filled with activity for the Explorers. With this in mind, Ames employees with young people in the 14-17 age group are urged to tell them about the Astronautics Post at the Center. For further details call Garth Hull, Ames Educational Services Officer, ext. 2785, or Warren Winovich, ext. 2696.

AMES EXPLORER POST ADVISOR . . . Warren Winovich, a research engineer in the High-Enthalpy Research Branch, explains the function of an electronic motor controller which will be installed in an electric car. Similar projects will be developed by members of the Ames Astronautics Explorer Post No. 12 during the coming year.



PAET LAUNCH . . . The Ames-managed Planetary Atmosphere Experiments Test is pictured as it was launched from Wallops Station on Sunday, June 20. Launch vehicle was the NASA Scout, a four-stage solid propellant rocket.

PAET Staff Enjoys Success

The launch crew of the Ames-managed PAET (Planetary Atmosphere Experiments Test) spacecraft returned to the Center on Thursday, June 24, after the completion of a highly successful mission.

During the 15-minute flight of PAET on June 20, the probe vehicle demonstrated selected entry experiments and instrumentation in the Earth's atmosphere. The Project Manager, David E. Reese, Jr., reports that the data analyzed to date looks excellent and he and his PAET team have compiled a report for presentations at NASA Headquarters. Roy P. Jackson, Associate Administrator for the Office of Advanced Research and Technology (OART) was briefed on the flight results last Tuesday (July 6), and the NASA Administrator, Dr. James C. Fletcher will be given a similar report on Monday (July 12).

For the past eight years Ames scientists and engineers have conducted research on atmospheric measurements from entry probes. This program has included analysis of various techniques for determining atmospheric characteristics from measurements made during entry; the development of special instrumentation to make the measurements; determination of the characteristics which an entry vehicle must incorporate to carry out the experiments with maximum accuracy, and finally, low-speed flight tests of an atmosphere structure experiment using payloads launched from high altitude balloons. This last effort demonstrated the capability for accurately determining the atmospheric structure from measurements of acceleration, pressure and temperature.

"The team effort of the group who put the PAET experiment package together is responsible for the success of the mission," said Mr. Reese, "the launch crew as well as members of the staff who remained at Ames during the final phase of the operation all contributed to the actual project during the past two-and-half years and

(Continued on page 3)

CHIEF OPERATOR . . . Barbara J. Yaeger of the Communications Branch has been a familiar voice over the Ames switchboard lines for more than 19 years. Now her responsibilities include such diverse activity as relief operator for her team of three, to ordering telephone services for users at the Center. In the latter position she coordinates and follows-up on all requests for service. Beside these assignments she is responsible for the publication of the Ames directory. Here she is pictured checking the location of telephone equipment and prepares to approve the installation.

FACES BEHIND THE VOICES . . . Communications, the vital people-to-people link, takes on new meaning when the voices become faces. Here, the communicators at the Ames switchboard are (l to r) Arlene V. Robinson, Doris E. Sorrels and Joan Nelson of the Communications Branch. These three telephone operators work varied shifts to keep the switchboard open each week day from 7:30 a.m. to 5 p.m. Although much of the telephone system is automatic, there are still many calls which must be handled by the operators, such as overseas calls, those that are placed collect, conference calls, and requests for information. During a one-day tally last week, 2462 calls were handled by the operators, while sharing other communications-related duties with the chief operator, Barbara J. Yeager.

TELETYPE SERVICES . . . are many and varied at Ames and operators (l to r) Jeanne L. Clemson and Winifred I. Malloy of the Communications Branch handle the operation together. They are pictured checking a readout of the Pioneer spacecraft data received over the NASCOM network, a worldwide operational communications system. This equipment is used at the Center primarily in support of Project Pioneer, yet data from other U.S. spacecraft, both manned and unmanned, and from tracking stations around the world, can be relayed through this network. This efficient team also operates the administrative equipments and circuits including on-line cryptograph, commercial systems such as TWX, TELEX and Western Union. They also operate the time-saving Facsimile System, a dual send and receiver unit capable of transmitting copies of documents across the country in six minutes through the FTS network.

Dr. Stein in T.V. Interview

In a taped interview Ames' Dr. Seymour N. Stein, Chief of the Medical Office, recently explained the contributions of space research to private medical practice over East Coast educational television. The interview was taped at the 1971 American Medical Association (AMA) Convention in Atlantic City last month.

In the interview, entitled "Another Side of the Moon", Dr. Stein described such medical advances as the Ames designed miniature catheter, telemetry units, transmittors and the respiratory monitor.

Due to numerous requests for a second viewing, the interview was broadcast twice.

Dr. Stein, representing Ames at the AMA convention, manned an exhibit illustrating, among other things, the use of the Five-Degree-of-Freedom Motion Simulator. Manning the exhibit with Dr. Stein was Dr. Ralph Pelligra and Kermit R. Skrettingland of the Ames Medical Services Branch; Drs. Jack D. Noyes, neuroradiologist; Philipp M. Lippe, neurosurgeon; James Markham, neurosurgeon, all of San Jose.

SPARCS Contract Awarded Lockheed

NASA has awarded a contract to the Lockheed Missiles and Space Company in Sunnyvale for technical and launch support for the Solar Pointing Aerobee Rocket Control System (SPARCS).

The Ames-developed SPARCS, an attitude control system for precisely pointing Aerobee sounding rocket payloads toward the Sun, has been in use since early 1968.

The contract also provides for refurbishment of flown SPARCS for additional data gathering flights.

Value of the contract, which is of the cost-plus-award-fee type, is estimated at $556,000 for the first year, with options to extend the contract for two additional yearly increments. Work will be performed at Sunnyvale, Ames, White Sands Missile Range in New Mexico, and Wallops Island, Virginia.

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Editor . . . . . Dot Evans
Reporters . . . . . NASA Employees

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Thursday between publication dates

PAET LAUNCH

(CONTINUED FROM PAGE 1)

share equally in the flawless performance of the spacecraft."

Members of the PAET team not referred to in the last issue of "The Astrogram" include Ellis E. Whiting, Principal Investigator for the Radiometer Composition Experiment, with his Associate Investigator James O. Arnold; and William A. Page, Principal Investigator for the Water Vapor Experiment, all from the Hypersonic Free-Flight Branch. Electronics engineers from the Electronic Research Branch Clifford N. Burrous and George R. Cook were responsible, respectively, for the radiometer and accelerometer power converters.

Instrumentation engineer James W. Lane of the Measurement Sciences Branch developed the pressure sensors for the spacecraft and John P. Millard, Thermal Protection Branch, prepared the temperature sensors. Principal Investigator for the Heat Shield Performance Experiment was Nick S. Vojvodich, Thermal Protection Branch. Robert W. Jackson, Vehicle Guidance and Control Branch, was responsible for the rate gyro; Robert E. Holmes and Ted M. Brown, RFE Branch, the system structural design; Eugene A. Rizzuti, Machine Branch, mechanical systems assembly; spacecraft wiring, John S. Matthews, EIB; preparation of the temperature sensors, Jack J. Osorno, MIB; also from EIB, Robert A. Steinhauer, electronics technician for the pressure sensor, temperature sensor, and the engineering data signal conditioner; and Alfredo R. Ragasa, electronics technician for the accelerometers. Ernest E. Porter of the Materials Processing Branch, was in charge of the fabrication of the separation system structure. David Gowan assisted with the R & QA of the project.

STOLAND Contract to Sperry Rand Co.

A contract to design and construct an advanced avionics system to be used for research in navigation and control during landing and takeoff of advanced STOL (Short Take Off and Landing) aircraft, has been awarded to the Sperry Rand Corporation by NASA. Technical monitors for the contract are Q. Marion Hansen, and Lou S. Young of the Ames Aeronautical Projects Office.

The heart of the system, called STOLAND, is a flight digital computer which provides navigation and control information to the pilot by means of advanced electronic displays. The system as well drives the control surfaces of the aircraft in response to inputs from the pilot or the computer.

STOLAND forms one element of a broader program involving, in addition to NASA, the Department of Transportation and the Federal Aviation Administration. In paralleling activities, these groups will be conducting research on new en-route navigation systems for STOL aircraft and on new ground-based equipment to supply the information used by STOLAND to perform its functions.

The various elements of the program will be brought together later for a joint agency flight research program on STOL aircraft operations. Present plans call for installation of STOLAND in a C-8 Buffalo aircraft which is now being modified with an Augmentor Wing for Jet STOL aircraft research. Installation will be made after the modified Buffalo completes a basic flight research program conducted in cooperation with the Department of Industry, Trade, and Commerce of the Canadian Government.

Work under the $2.3 million contract will be done by Sperry Rand's Flight Systems Division in Phoenix, Arizona.

SUPERIOR PERFORMANCE . . . Marcial T. Simpson, Cost Analysis and Special Projects was recently commended for his "outstanding services" through the receipt of a NASA Special Achievement Award. Mr. Simpson (left), is pictured above with Alvin S. Hertzog, Chief of the Procurement Division, as he is presented a check for $275 and a letter of commendation signed by Dr. Hans Mark, Ames Director. Mr. Simpson was commended for his efforts to lessen a PG&E Utility rate increase for the Center.

Young Professionals in Symposium

Nadine H. Kuhlmann, Employment Branch, has been selected as one of three personnel professionals to represent NASA at the Symposium of Young Personnel Professionals. The Symposium, to be held July 18 through July 24, will take place at the Federal Executive Institute (FEI) in Charlottesville, Virginia.

A total of 60 young professionals from throughout the United States will gather at the FEI to discuss the Symposium's theme, "Social Change and Federal Personnel Management."

The theme will emphasize "the impact of social change on Federal personnel management and how personnelists can affect and work with this evolution."

Selection of the participants was based on their age, professional performance, GS rating and length of experience. Primary among selection criteria was, "that participants will be people who, by their performance, have clearly demonstrated . . . their potential for positions of the highest responsibility in the years ahead."

Credit Union Tops 3.1 Million

Total assets of the Moffett Field Employees Credit Union are now in excess of $3.1 million, an increase of $116,000 since the last report in February.

To accommodate the ever-increasing number of business transactions at the Credit Union office hours for the public are 10 a.m. to 4 p.m. each week day except Monday when the office remains open until 5:30 p.m., and from 10 a.m. to 1 p.m. on Saturdays.

The Credit Union is located at Moffett Field and services all Federal Civil Service employees and active and retired military personnel who are residents of Santa Clara and San Mateo counties.

Art Exhibit at Main Library

A second art exhibit will be presented in the Ames Main Library beginning July 12 and extending through August 9. The theme of the exhibit by the members of Group 21 Gallery in Los Gatos is "The Butterfly and the Urban Environment."

Calendar of Events

ARA Activities

July 23 - Ames Family Night at Santa Cruz Beach and Boardwalk. Exchange coupons available at the Cafeteria or room 107, Bldg. 240. Unlimited rides for $2.50.

July 30 - Ames night at the Ice Follies. Tickets may be purchased from the Ames Imprest Fund Cashier, Bldg. 203, until July 16. Adults $4.50, Juniors, $2.75.

"Thank You" Note

A note from Ben Shoemaker, long-time Ames employee now retired from the Reproduction Service Branch, expressed his thanks to friends and business associates at the Center for the farewell gifts of a wristwatch and photo album. Ben and his wife, Mae, are now making their home in Palm Springs.

Ames Airings

. . . by Jeanne Richardson

EUGENE (GINO) PUCINE, Programming Office got a new roommate June 11 in Redwood City. Her name is Elizabeth. After the small ceremony Gino and Elizabeth dined at Charlie Brown's, then were off on a short trip to Long Beach.

They visited a friend and old Ames employee, STEVE HEINEMAN formerly of the Machine Shop. Steve recently received his Masters degree from Los Angeles State College. Congratulations Steve, Gino and Elizabeth!

If, by a stroke of fate, Ames were cut off from the world and we all had to live out our lives solely with each other, what do you suppose it would be like? According to the Ames Telephone Directory it would not be half bad.

We would have two WOODS and a FORREST to walk in. There would be a BEAR, WOLFs of three different SPECIES, a COON and a RABBOT.

The WOODS would be complete with OAKES; BROOKS with BRIDGES across; a HILL and a MEAD; a BEACH; FLOWERS, a ROUNTREE and a BUSCH. And there would be a WATERFALL in the forest, splashing down into BRIGHT WATERS.

With WOOD from our forest our two CARPENTERs could build us a BARRACK, a FORTE and an INN. Our MASON could build a CASTLE with a HIGHTOWER and BELL for our royalty. The royalty, by the way, would include six KINGS, two DUKES and a LORD. They would have a BUTLER and two PAGEs to serve them. The castle would be complete with CHAMBERS, five HALLs, three PARKs, a LANE and a PADDOCK for the horses.

Our mason would also have to build a church. Though we would have only one CHRISTIAN among us, there would be an ABBOTT, a BISHOP, a POPE and ST. JOHN; not to mention a NUNAMAKER.

Life would be easy. Our craftsmen would include a WEAVER, two retired SHOEMAKERs, two SHEPARDs, three MILLERs, a GLAZER, a BILLMAN (ugh!), three FISHERs, a COOK to FRY the fish, two TAYLORs, a TANNER, a HAYMAKER, and a SHOWMAN.

Speaking of entertainment, we would be well off in that department. We would have two related VICEs. One of which would obviously be drinking because our BARR would be well stocked with BALLANTINE, BEAM and LOEWENSTEIN. We could even have a festival of BACHAS with a BALLARD who SUNG songs of LOVE.

If we tired of our ballard we would have a big variety of other musical talent to choose from. For instance we'd have WELK and PRESLEY, MILLER with his HORN, KROUPA on the drums and even a STRAUSS for waltzes.

Other big name STARRs, like BOGART, DIETRICH, STEWART and WILL RODGERS, would be there to entertain us as well.

For our reading pleasure we would have DICKENS for social comment; GREELEY for direction; HOLMES for mystery; SWIFT for satire; and SPENCER for poetry.

There would be many other famous personages to influence us. For instance; KELLER for inspiration; SHUMWAY for our hearts; HUNTLEY for news; HEINZE for variety; KILPATRICK for freshness; and for fighting -who else- FRAZIER. High on our list would be LEARY. For advice on cattle we'd have REGAN, and for scandal there would be KEELER. On the lighter side, we could read the wisdom of LUCY and SCHROEDER.

We would always be youthful, for the directory has a YOUNG, but no old.

But we would still need the basics of life, like food and DRINKWATER. Again we would be well provided for, with WELLS and our own GARDEN.

The garden would be full of goodies. There would be VANELLA and COCCO; a BUNCH of PEAs for CANNING; BERRYs; a GROSS of LEMON

If we wanted hotdogs we would have two LUMs in the neighborhood.

But it is possible that all would not be DEVINE BLISS and LEASURE. We would have to be very careful, for among us would be two LAWLESS SAVAGEs and a KAHN. But we could depend on PATTON and other big BRASS for protection.

Now if Patton and the brass decided to BODILY remove Kahn and his savages, there would probably be PAYNE and BLOOD shed.

For instance, if the factions decided to set up CAMP on opposite BANKS of one of our brooks, and the Kahn threw the first STONE, Patton's TROOP would undoubtedly give CHASE.

Each of the savages would have SHIELDS and a SHARPE PIKE with which to PIERCE their MARK. Patton, never known to be MEEK, would outsmart them. He would dig three PITTS, then disquise them and build a STRAWBRIDGE over them.

He could then persuade the savages to FALLO him over the bridge, knowing it would hold his weight, but not theirs.

If the bridge proved to be too STRONG, and held the weight of the Kahn and his men, would Patton be STUCK? No. He could march to his SHIPP (called the MAINES) and hide in the HULL.

If the Kahn was smart however, he could still put the FINGER on Patton by FORCE. He could FERRY over and BOLT onto the deck of DA FOE's ship.

Again Patton could outsmart him. He could TUNNELL out of the hull with his CHISEL, jump in his CARR and bid "A Farewell to Ames."

New Location for Discount Cards

All Disneyland, Santa Cruz Beach and Boardwalk, Roaring Camp, Sea World, Frontier Village and miscellaneous discount cards are now available through the Ames Recreation Assocition (ARA). The ARA also handles special discounts on books, sporting events and special entertainment attractions in the Bay Area.

These services , formerly distributed through "The Astrogram" office, are now available in the Ames Cafeteria and in Building 240, Room 107. ARA Executive Board Member, Peggy Larson, ext. 2936, will be in charge of their distribution. For information contact Mrs. Larson, or visit the display in the Cafeteria.

SOFTBALL

RFE pulled off it's Annual Upset on June 9. This year's victims were the Fighting Pumas, who saw a 9-game winning streak end as RFE put-it-all-together to turn an 8-3 deficit into a 10-8 victory. Congratulations RFE!

The lucky Pumas backed into the first-half title anyway. MFB blew their chance for a first place tie when a determined Space Science team built up an early lead, then hung on to win 9-7 on June 22.

FINAL FIRST HALF STANDINGS:

	W	L	GB
Fighting Pumas	4	1	-
MFB	3	2	1
Instrumentals *	2	2	11/2
RFE	2	3	2
Space Science	2	3	2
TGD *	1	3	21/2

*tie game

WANT ADS

The Astrogram's ad section is provided as a personal, non-commercial service to Ames employees. Advertiser must be identified by name, extension and organization. The name may be left out of the ad but is needed for records. Ads must be submitted in writing to The Astrogram, N-241-4, by Thursday, a week before publication. The advertiser's home telephone number must be provided as a point of contact except in carpool notices.

AUTOMOBILES

For Sale-1969 Camero, Model 250, Vinyl top, metallic finish, automatic drive, 13,600 miles, immaculate, $2,100. Daytime call 328-2290, evenings 328-0161.

For Sale-1969 Toyota Land Cruiser, 4-wheel drive, hard top, $2,095. 296-7188.

For Sale-1960 Dodge 4-door, clean car, $110. Call 793-5681.

For Sale-1964 Triumph, TR4, $600. Call 227-3169, after 6 p.m.

HOUSING

For Sale- Condominium, modern 4-br., 2 1/2 bath, Excellent Santa Clara location $31,500, call 248-4690 or agent 732-7400.

For Sale-3 bedroom, 2 bath, carpets, drapes, dishwasher, fenced yard, good neighborhood, plus extras. $26,450. In Milpitas, 263-0349 evenings.

For Rent-3 bedroom, 2 bath, house in quiet park - like setting. Fireplace, large family room, and brick patio. Convenient to shopping. 10 min. by freeway to Ames. $325. Call R. Munoz, 941-3589.

For Sale-4 bedroom, 2 1/2 bath; 2 fireplaces, family room house on 2/3 acre in beautiful Atherton 15 minutes from Moffett. 10 fruit and nut trees, Sauna. Call 368-7176.

MISCELLANEOUS

For Sale-Siamese Chocolate Point kitten (female). She has a white body with chocolate ears, mask, tail, and feet and comes with registration papers. $20, 253-4475.

For Sale-1968 Honda 305 cc "Superhawk". This motorcycle is an excellent street machine - fast and reliable. Partially customized. Looks and runs great. Will sell for $350, or trade for a dirt (or trail) bike of comparable value. Dick Gemoets, 723-8676.

For Sale-Crib $10, Dinette set $15, Gas range $30, 792-3859 after 1 p.m.

For Sale or Trade-2 man rubber raft, oars and pump. Ladies bike 26", light weight chain saw or light weight outboard motor. Don Carter, 266-7081.

Ride Wanted-from El Camino Real by Escondido Village, Stanford, for 8 or 8:30 to 4:30 or 5. Call Linda Schwall, ext. 2174.

For Sale-desk $15, chair $10, miscellaneous tables $2 - $6, bookcases $5, upright vacuum $14, and more! Call 257-3528.

Missing-Personally owned copy of Journal of Physiology, 122, 1953, bound in dark red with white lettering. Please return to Ogden, LV:239-8, ext. 2419 or 324-2685.

For Sale-Desk $25, End table $15, Vibes $225. Call Charles Boltnott, 941-4419.

Ride Needed-7:30 to 4 shift, Vicinity of Cherry Chase or Sylvan and El Camino. Call 961-3157 after 5 p.m.

For Sale-Red worms, 75 for 65¢. Call Don Lefforge 293-4010.

For Sale-1968 Honda 90, 8 speed, 960 miles, $170 call Don Lefforge 293-4010.

For Sale-Utility trailer, 2-wheel $85. P. Nelson, 378-0806 after 5 p.m.

For Sale-Membership, Seagull Flying Club, San Jose based. Cessna 172 $6/hr. wet, M-Bonanza $12/hr. wet, $1150 to join. Refundable. 964-1636.

For Sale-Eight place setting of green stone ware $29. One oil painting. Used Ski boots 8 1/2 $9. Call Jack after 7 p.m., 964-3415.

Wanted-Used bicycles, full size, mans 5 or 10 speed, womans 3 or 5 speed, Raleigh or similar. Tillman 258-3953.

Temporary Housing-Would you like to have a responsible Ames family care for your home for a two to four week period beginning July 18? The sale of our house has left us homeless during that period. Call Ken McDonald, Ext. 2979.

For Sale-House, 10 minutes from Ames in former plum orchard. 3-br. 2-bath, AEK, big patio, guest house/workshop in back. $35,500. Fred Wirth, 245-7208.

Wanted-Experienced carpenter to build back yard deck. Call 854-4437 after 5 p.m.

For Sale-Crib $20, port-a-crib (full mattress) $30 maple high chair $13, car bed $10, 2" boys bike, $18, call 854-4437 after 5 p.m.

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Apollo 15 Launch Set for July 26

The 12-day Apollo 15 mission scheduled for launch next Monday, July 26, at 6:34 a.m., PDT, will carry out the fourth United States manned exploration of the Moon. The date follows by less than a week the first manned lunar landing on July 20, 1969.

This latest lunar landing mission will be the first to use an improved lunar module (LM) capable of delivering to the lunar surface twice as much equipment and scientific payload, and an improved life support system which will double the time the astronauts can work on the Moon.

Other firsts for the mission will be the use of a lunar roving vehicle (LRV) and a new portable color TV camera that can be controlled from the ground to show the astronauts at work during the longest periods of lunar exploration yet to be attempted. When the astronauts take off for Earth they will leave the TV camera positioned on the LRV several hundred feet away from the lunar module. This will permit viewers on Earth to witness the blastoff for the first time. Later ground controllers hope to use the camera daily with the remaining power supply. One event to be viewed is an eclipse of the Sun by the Earth on August 6.

The Apollo 15 lunar module will make its descent over the Apennine peaks, one of the highest mountain ranges on the Moon, to land near the rim of the canyon-like Hadley Rille. From this Hadley-Apennine lunar base, between the mountain range and the rille, Commander David R. Scott and Lunar Module Pilot James B. Irwin will explore several kilometers from the lunar module, driving the LRV.

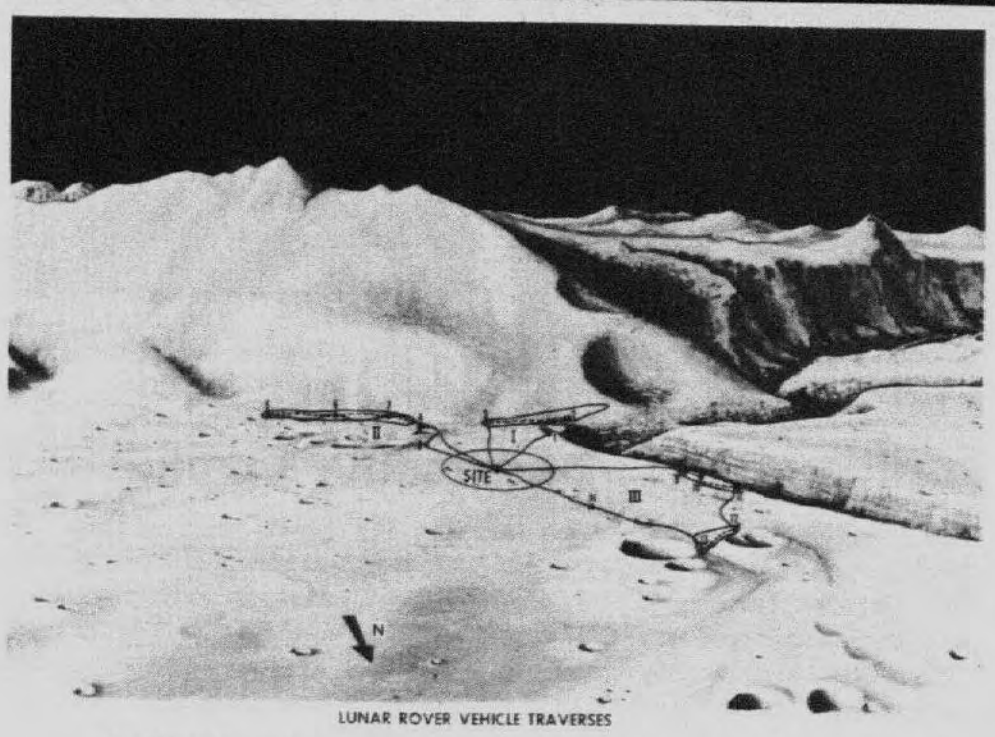
Scott and Irwin will leave the LM for three exploration periods to emplace scientific experiments on the lunar surface and to make detailed geologic investigations of formations in the Apennine foothills, along the Hadley Rille rim, and to other geologic structures.

Significant scientific data on the Earth-Sun-Moon system and on the Moon itself will be gathered by a series of lunar orbital experiments carried aboard the Apollo command/service modules. Most of the orbital science tasks will be accomplished by Command Module Pilot Alfred M. Worden, while his comrades are on the lunar surface.

Experiments conducted on the Moon's surface during Apollo 15 will include a heat flow experiment to measure heat emanating from beneath the lunar surface; a passive seismometer to measure meteoroid impacts and moonquakes; a tri-axis magnetometer to measure the magnetic field; a solar wind spectrometer to determine the nature of the solar wind's interactions with the Moon; a suprathermal ion detector to provide information on the energy and mass of positive ions close to the lunar surface; a cold cathode ionization gauge to measure the density of neutral particles in the lunar atmosphere; a lunar dust detector; and a laser reflector larger than those left by Apollos 11 and 14 for precise measurements of the distance between the Moon and Earth.

The prime recovery ship for Apollo 15 is the helicopter landing platform USS Okinawa.

Call sign for the Apollo 15 command module is "Endeavor", and the lunar module is "Falcon."



LANDING SITE . . . NASA artist's concept of the Apollo 15 landing site. Selection of the site was based on accessibility to mountains, the rille, and crater formations. The large mountain, Hadley Delta, rises about 11,000 feet above the nearby plain (higher than the eastern slope of the Sierra). The river-shaped valley, Hadley Rille, is about one mile wide and 1,200 feet deep. Origin of this meandering valley is a puzzle and information gained from scientific exploration of the rille will assist scientists in determining its origin.

Good Data from Two SPARCS

Two launches of the Ames-developed SPARCS (Solar Pointing Aerobee Rocket Control System) took place in mid-June and preliminary examination of the data indicates the scientific objectives of the flight were highly successful, according to Edward A. Gabris, SPARCS Project Manager, Vehicle Guidance and Control Branch.

This was the second SPARCS II flight and Number 14 for SPARCS I. Aerobee rockets launched both SPARCS systems from the White Sands Missile Range.

The SPARCS II payload was an ultra-violet experiment built by the Institute for Astronomy at the University of Hawaii, and the SPARCS I payload carried three aeronomy experiments from the Manned Space Flight Center. Both payloads were integrated at Ames. All support requirements, such as power, telemetry and command, for the Hawaii payload were provided by the SPARCS contractor, Lockheed Missiles and Space Company. This was the second payload supported in this manner by SPARCS and both were totally successful.

Ames Magnetometer on Apollo 15

One of Ames' most successful experiments, a magnetometer, will be placed on the lunar surface during the Apollo 15 mission, scheduled for launch July 26. It will be the third time an Ames magnetometer has been included on a manned mission.

The Apollo 15 Lunar Surface Magnetometer (LSM) is similar to the Apollo 12 LSM which is still returning data to Earth. Together, the two magnetometers will establish a network. Such a network will extend, for the first time, our global view of the Moon's magnetic fields.

Also for the first time, a magnetometer will be located at the base of a mountain range; the majestic Appenine Range. It is hoped that the data returned from this location will provide greater insight into the origin of lunar magnetic fields.

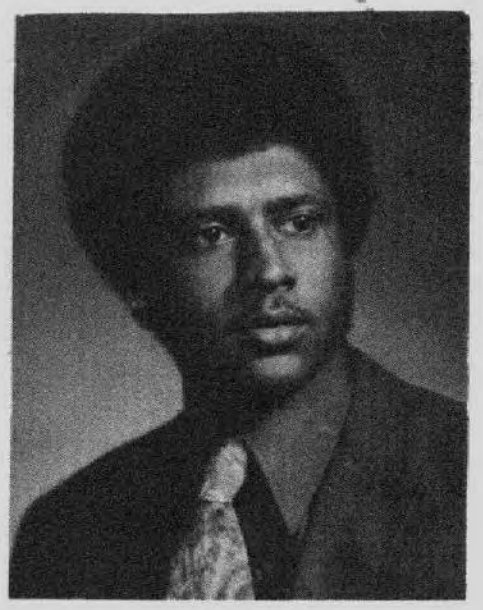
Prior to the Apollo 12 mission, the Moon was thought to have a very low magnetic field, no greater than about 2 gammas. Measurements returned from the Apollo 12 magnetometer showed a lunar field of 38 gammas. The Apollo 14 portable magnetometer uncovered one field of 43 gammas and another of 103 gammas. These measurements have surprised scientists and shaken previously held theories.

Lunar magnetic fields are related to the solar wind and to the temperature and electrical properties of the interior of the Moon. It is through measurements of these elements that scientists hope to derive a more accurate indication of the Moon's age, and in turn the solar system.

Ames scientists responsible for the Apollo 15 LSM are; Dr. Charles P. Sonett, Deputy Director of Astronautics; Dr. Palmer Dyal, Dr. Curtis W. Parkin, Dr. David S. Colburn, and Dr. Bruce Smith.

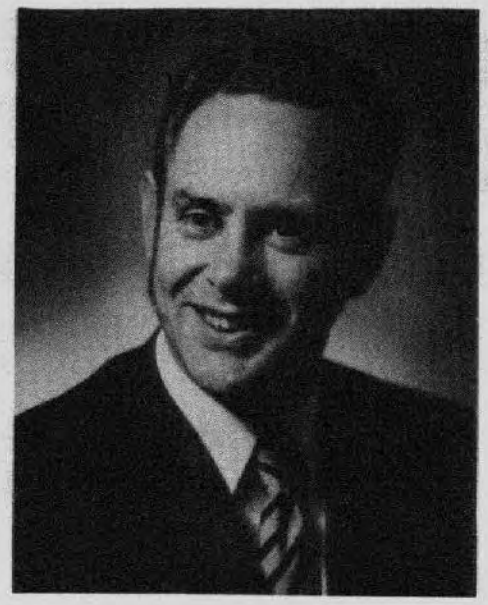
Apollo 15 Splashdown

Splashdown for Apollo 15 is set for August 7 in the Pacific, north of Hawaii, at 1:46 p.m. PDT. There will be no post mission quarrantine for the astronauts. Studies of past Apollo flights show no hazard to man, animal or plants from lunar materials.



Ronald E. Goldsberry
Materials Research Branch

Yvonne Smith Russell
Research Instrumentation Branch



Sheldon M. Smith
Physics Branch

Three New Equal Employment Opportunity Counselors

Three Ames employees were selected recently to serve as Equal Employment Opportunity (EEO) Counselors by Dr. Hans Mark, Ames Director. They are: Dr. Ronald E. Goldsberry, Materials Research Branch; Yvonne S. Russell, Research Instrumentation Branch; and Sheldon M. Smith, Physics Branch. The new counselors will take over the counseling duties previously performed by Alberta Y. Alksne, formerly of the Theoretical Studies Branch; Frank E. DuBois, Jr., Planetary Environment Branch; and Willie L. White, Jr., Employee Development Branch. Mr. White will continue in his position as chairman of the Committee of Counselors.

The new appointees join counselors Jessie C. Gaspar, Programming Branch; Joseph P. Licursi, Electrical Engineering Branch; Manuel M. Orozco, STOL Experiments Office: and Tobibio G. Gonzales, Computer Operations Branch.

EEO Counselors serve as a bridge between employees and management. They have the responsibility for establishing an open and sympathetic channel through which employees may raise questions, discuss grievances, get answers, and on an informal basis resolve problems connected with equal employment opportunity.

Previous experience in related areas of equal opportunity gives each of the new counselors an insight into the program and its future. Their role is an integral part of the total EEO program at the Center and it is important to the success of the program that the role be supported by the entire Ames staff.

RONALD E. GOLDSBERRY

Dr. Ronald E. Goldsberry, Materials Research Branch, is as well qualified for his new position as EEO Counselor, as he is for his position as Research Chemist. He came to Ames in 1969 after receiving his B.S. degree from Central State University, Ohio; and his M.S. and Ph.D. degrees from Michigan State University.

Since coming to the Bay Area, Dr. Goldsberry has devoted a great deal of time to improving the opportunities of minorities. He aided in the founding of Nairobi College in East Palo Alto; organized the chemistry section of the school and has taught there.

He has tutored minority students at both Nairobi College and at San Jose State College, where he is presently teaching Chemistry on a part time basis. Also in connection with San Jose State, he is advisor to the undergraduate, predominately black, fraternity, Omega Psi Phi.

Dr. Goldsberry recently said during an interview that as EEO Counselor he feels he should act "primarily as a mediator between the minorities and other employees at Ames." He hopes he can aid in the education process that must take place for both sides as minority involvement increases. "Perhaps", he said, "I can smooth out the transition for both groups."

Of the EEO program, he said he hopes to see more emphasis placed on the recruiting of minorities for positions at Ames. He also feels that Ames has a wealth of technology that could be made more readily available to community training programs.

YVONNE S. RUSSELL

Yvonne S. Russell, Research Instrumentation Branch, said during a recent interview that she has found her new role as EEO Counselor "personally satisfying." Mrs. Russell was graduated from the University of Arkansas with a B.S. degree in Electrical Engineering. She began her Ames assignment in 1962.

She stated that at NASA she feels she "is working with a group of the best minds, welded into a team, that has ever existed. "This kind of team effort," she said, "is the only way to solve problems in this technological age."

Although she emphasized the necessity of team work, she also pointed out the value of one-to-one communication in counseling. She feels EEO counseling is an "excellent idea" because it incorporates an effective means of communication.

She pointed out, however, the need for more education in the area of equal opportunity. She feels all areas of Ames staff, not simply the minorities, could benefit from further education in this subject.

Looking into the future, she said, "I hope our programs will be successful and our reports so comprehensive that they will be used for models by other agencies.

SHELDON M. SMITH

Long before he was asked to serve as EEO Counselor at Ames, Sheldon M. Smith, Physics Branch, was interested in working for equal opportunity among men. A member of the National Association for the Advancement of Colored People (NAACP) since 1956, he has served as treasurer and vice president in charge of finances for the Palo Alto Stanford Chapter. During a recent interview Mr. Smith stated that he and his wife had joined the NAACP because of their conviction that; "There has to be a place for blacks and whites to work together."

Mr. Smith came to Ames in 1962 after receiving an M.A. degree in Physics from U.C. at Davis and a B.S. degree from U.C. at Berkeley.

As a counselor for Ames' EEO Program Mr. Smith stated that he would like to see, in general, an increase in the number of minority employees at Ames. He would particularly like to see more minority employees in the higher levels of Ames' management, and fewer in the lower level jobs where traditionally they have been assigned.

Mr. Smith also said that he would like to see Ames become associated with the opportunity and industrialization centers in the area. By providing qualified instructors and equipment for training programs, Ames would be contributing to the betterment of the community.

Discussing Project Breakthrough and the many youth programs at Ames, Mr. Smith said he feels they have been highly successful. "Project Breakthrough, he said, "is a program Ames should be proud of."

Access to Navy Side Restricted

The Naval Air Station Command has requested that a reminder be given to all personnel at Ames concerning which facilities on the Navy side may be visited.

Personnel assigned to Ames Research Center, including Ames employees, guest workers, post doctorate research associates, those employed under a grant, youth opportunity program employees, and contractor employees, are authorized to visit the Air Station for the purpose of going to, or returning from, the NAS Post Office, the bank, Credit Union office, snack bar, and other points of contact as required for official purposes, or as the guest of an individual with Navy base privileges. The presence of employees on either Ames or Navy premises presupposes they have been issued, and are wearing, the appropriate badge.

Services such as the Navy Exchange, Commissary, gas station, and nursery are available only to those with base privileges.

As an additional reminder, the officers' base housing area is not open to the public and only residents and their guests are authorized there.

The astrogram Room 134 Admin. Mgt. Building Phone 2385

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Editor ..... Dot Evans
Reporters ..... NASA Employees

Deadline for contributions:
Thursday between publication dates

The Evolution of the Universe

NASA/Ames-Stanford-Lick Observatory
Joint Colloquium Series

NASA/Ames Research Center Main Auditorium, Building N-201

Friday	**23 July**	**2:30 PM**	**OUR UNIVERSE:** The Known and the Unknown Professor John A. Wheeler, Dept. of Physics, Princeton University
Tuesday	**27 July**	**7:30 PM**	**CURVATURE AND RADIATION:** What Could "Understanding the Origins of the Universe" Mean? Professor Charles E. Misner, Dept. of Physics and Astronomy, University of Maryland
***Tuesday**	**3 August**	**7:30 PM**	**THE EARLY UNIVERSE** Professor P. J. E. Peebles, Dept. of Physics, Princeton University *Room 080, Skilling Auditorium Stanford University, Stanford, California.
Tuesday	**10 August**	**7:30 PM**	**COSOMOLOGY:** The Structure of the Universe Dr. Martin Rees, Institute for Theoretical Astrophysics, Cambridge, England
Tuesday	**17 August**	**7:30 PM**	**OBSERVATIONS OF DISTANT GALAXIES** Professor Sidney van den Bergh, David Dunlap Observatory, University of Toronto
Tuesday	**24 August**	**7:30 PM**	**THE ORGIN OF THE ELEMENTS** Professors John Reynolds and Eugene D. Commins, Dept. of Physics, University of California, Berkeley
Tuesday	**31 August**	**7:30 PM**	**RADIO SOURCES AND QUASI-STELLAR OBJECTS** Professor Maarten Schmidt, Dept. of Astronomy, California Institute of Technology

PROGRAM OPEN TO ALL AMES EMPLOYEES AND THE GENERAL PUBLIC. Note: September schedule will be printed in a later edition.

A ROTATING DISC . . . to hold Aloris tools and a set of assorted tool mounts, has been designed by Vernon W. Fietzer (right) for use on lathes in the Machine Branch. The holding rack maintains the precision height adjustments of the tools and protects the dove-tailed surfaces which are easily damaged. An award of $30 was presented to Mr. Feitzer based on first-year savings to the Center. Mitchell Radovich (left), Assistant Chief of the Machine Branch, is pictured discussing the new holder with Mr. Fietzer.

Ames Scientists Hold News Briefing

Ames scientists working with lunar rock samples and data brought back by the Apollo 14 astronauts met with members of the press recently here at Ames. Participating in the news briefing were ; Dr. Charles P. Sonett, Deputy Director of Astronautics; Dr. Cyril Ponnamperuma, Chief of the Chemical Evolution Branch, Vance I. Oyama, Chief of the Life Detection Systems Branch; and Dr. William L. Quaide of the Planetology Branch.

The scientists generally agreed that it was too early to make conclusive statements about the results of their Apollo 14 research. The lunar rock samples have been at Ames for about one month; however, preliminary data may show a correlation between previous findings from the Apollo 11 and 12 missions.

NASA Handbook

NASA has just issued to all installations NASA Handbook 3771.2 setting forth the procedure for processing grievances and adverse action appeals. Copies have been distributed to Ames Management Manual holders. Employees will find it available for review in branch or division offices.

Any questions regarding provisions of this handbook should be directed to the Chief, Employee Management Relations Branch, Mail Stop 241-9B, ext. 2024.

USSR Moon Rocks

Twenty-four U.S. scientists recently began receiving samples of soil returned from the Moon by the Soviet Union's Luna 16 spacecraft.

Three grams of the Soviet sample, returned from the Moon's Sea of Fertility by the unmanned Luna on September 24, were provided the United States in exchange for three grams each of Apollo 11 and 12 lunar sample.

The exchange was based on an agreement reached last January between the U.S. and the Soviet Union.

Acquisition by U.S. scientists of part of the Luna 16 material obtained by the Russians makes possible important measurements on an area of the Moon that will not be sampled in the Apollo program."

Hingeless Tilt Rotor Contract

NASA has awarded a contract for the fabrication and test of a hingeless, low disk loading tilt rotor to the Vertrol Division of Boeing Company in Philadelphia.

The cost-plus-fixed fee contract is estimated at $1.4 million.

As part of a joint U.S. Army-NASA program to provide the technology for design of a research aircraft, the contractor will build a tilt rotor based on a diameter of 26 feet and a design cruise speed of 300 knots. Although actual flight is not scheduled, the tilt rotor will be fabricated consistent with flight application.

The program is managed here at Ames where tests will be conducted in the 40 by 80-foot wind tunnel. Experimental results of the tests will be compared with theoretical predictions as well as other tilt rotor experimental data. Any pertinent findings of the research project will be disseminated throughout the aeronautical community.

A NEW METHOD . . . to force-feed lubrication of the angle drive mechanism in the 12-Foot Wind Tunnel proposed by Bert N. Irish (center), Machine Branch, corrected a specification error and resulted in a suggestion award of $70 based on first year tangible savings. The new system has extended the life expectancy of the unit and improved data accuracy by eliminating excess vibration. Mr. Irish is shown here pointing out his suggestion to Mitchell Radovich (left), Assistant Chief of the Machine Branch, and Verlin D. Reed (right), Chief of the Experimental Investigations Branch.

Calendar of Events

July 27 and 29: Film "And on the Third Day", 28 min. color, sound, shows 21 outstanding gardens in the U.S.A., including that of Hearst Castle. Noon, Bldg. 213, room 261.

July 30: Ames night at the Ice Follies. Tickets may be purchased from the Ames Imprest Fund Cashier, Bldg. 203, until July 16. Adults $4.50, Juniors, $2.75.

Ames Airings

. . . by Jeanne Richardson

DR. WILLIAM QUAIDE, Planetology Branch and his wife EVELYN recently returned from a three-week tour of Europe. They went with the NASA tour, made up of 154 persons representing seven of the installations. Dr. Quaide said the group was so congenial that even the bus was fun.

They visited eight countries, from Switzerland to Italy. Dr. and Mrs. Quaide enjoyed London and Venice most; London because of its excitement and Venice because it is different and charming.

One of the highlights of the trip, at least for the Quaides, was the Rhine river. That's where they celebrated Dr. Quaide's birthday, with lots of Rhine wine.

SHARON DUFUR, formerly of Graphics and Exhibits, was feted at the Swiss Chalet last week by a group of friends, many from the Programs and Resources Branch. The occasion: Sharon was leaving Ames to enter a convent in Illinois. The group gave her the party to say farewell and to "show what she'd be missing." She left anyway. Good luck Sharon.

GOLF

. . . by Kay Bruck

Aptos, a favorite course for Ames golfers, turned out a record crowd as reported by chairmen, Sal Tardio and Roy Griffin. Seventy players showed up for the point par tournament which was held July 17 with the following winners:

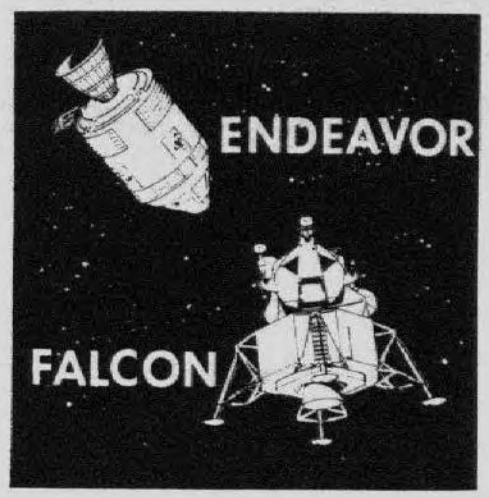
First Flight: 1st place-Ed Stepnoski and bogus partner (blind score due to odd number of players); 2nd place-Ron Dennison and Roger Hedlund; 3rd place - two teams tied - Frank Lazzaroni and Roy Griffin and Bob Eddy and Fred Carpenter; Closest-to-the-pin in the first flight was won by Ruben Ramos.

Second Flight: 1st place- Russ Cravens and Earl Menefee; 2nd place - two teams tied again - Ruth Richardson and Armondo Lopez and Paul Kutler and Bill Thompson; 3rd place - another tie - Lee Seegmiller and Ken Souza and Ed Tischler and Tony Astalfa; Closest-to-the-pin in the 2nd flight was won by Jim Nelan.

Third Flight: 1st place - Jim Silver and Dick Johns; 2nd place-Sal Tardio and Howard Garrison; 3rd place - Earl Maynard and Kay Bruck; Closest to-the-pin in the third flight was won by Edie Watson.

Apollo 15
Mission Events

Event	Date	Time (PDT)
Launch	7/26	6:34 a.m.
Lunar landing	7/30	3:15 p.m.
EVA 1	7/31	6:24 a.m.
EVA 2	8/1	3:46 a.m.
EVA 3	8/2	1:24 a.m.
Liftoff from Moon	8/2	10:09 p.m.
Splashdown	8/7	1:46 p.m.



JOGGERNEWS

. . . by Jim Woodruff

Joggernauts recently ran three races that were just over nine miles long. They were the Woodminster race, on June 13, the Holy City Race on June 27, and the Felton Race on July 11. Dennis Stevenson and Paul Sebesta ran the Felton Race. "A beautiful course through Woodland Trails," Paul reports. The Holy City Race, over roads with rolling hills brought out Jerry Barrack, Dale Shute, Art Mandell, Dennis Stevenson, and George Lenahan, who finished in that order. The Joggernauts to finish the Felton Race, which has some steeper hills, were Jerry Barrack, Vito D'Aloia, Jim Woodruff, Art Mandell, and Roger Hedlund, in that order.

Sunday July 18 Vito D'Aloia and Jim Woodruff ran the 15 mile Fort Baker Handicap Race.

Anyone interested in running a relay race around Lake Tahoe on August 14 call Paul Sebesta, 2378, or Jim Woodruff, 2066. Seven man teams run a total distance of 72 miles, each man running nine and a half to twelve miles.

FASTPITCH SOFTBALL

. . . by Jim Myers

NASA, with two games left to play, beat UTI by a score of 4-3. The game was played in the Mt. View 'B' League and just about cinched second place for the season. If we win the next two games NASA will have a chance at first place.

BOX SCORE

	POS.	AB	R	H	RBI
M. Green	1B	4	1	2	0
B. Ganzler	2B	4	0	2	1
G. Alger	LF	2	0	1	0
R. Hedlund	CF	3	1	1	0
J. Myers	3B	2	0	0	0
D. Kornreich	RF	2	1	1	0
B. Bell	C	3	0	1	0
B. Scott	SS	3	1	1	1
B. Corbett	P	1	0	0	0
P. Wilcox		1	0	0	0
	Totals	25	4	9	2

SOFTBALL

. . . by Grantland Wheat

RFE did it again - RFE 4, Pumas 3! Ruben Martell singled home the winning run in the last inning; Martell and White both homered for the winners. The previous week (July 7) RFE knocked off the Instrumentals 10-2.

Space Science scored two comeback victories over TGD (7-6 on July 8) and the I's (11-10 on July 13). And in the wildest game this season, TGD out-slugged MFB 18-17 on July 15.

Second-half standings through July 16:

	W	L	GB
RFE	2	0	-
ASpace Science	2	0	-
TGD	1	1	1
MFB	0	1	1 1/2
Pumas	0	1	1 1/2
Instrumentals	0	2	2

TENNIS

Recent scores: Schroeder over Cowley, 6-1; Bohn over Maynard, 6-2, 6-2; Glynn over Lovas, 6-1, 6-1; Poppa over Snetsinger, 6-1, 7-5. Those wishing to join Ames Tennis Club send name and mail stop to K.G. Snetsinger (245-5) and a copy of the challenge ladder will be sent.

BOWLING

. . . by Dennis Riddle

The All-Ames Tuesday night league will be starting its season September 14th. We will be bowling at Moonlite Lanes in Santa Clara at approximately 6:30 p.m. The weekly tariff will be $2.60 per bowler.

Several teams and individual bowlers have already reserved spots. If you have not done so, contact me now. Call Dennis at 2553 or drop a note in the mail to 227-9. We want to get everyone signed up early so we can get the ball rolling on the league for '71-'72.

WANT ADS

AUTOMOBILES

For Sale - 1969 Volkswagen Beetle - Automatic Stick shift-excellent condition, only 26,000 miles. Call Bob Taylor, 948-4941.

For Sale-1970 Ford Van Mini-home. 5 yr.-50,000 mile warranty in effect. Sleeps two, can be easily converted to sleep family of four or five. Asking $4900 or best offer. Call 243-0268 (for more information/details) after 5 p.m. weekdays.

For Sale-'65 Dodge Dart G.T., V-8 convert., 4-spd. trans, mags, very good cond., many extras. Call E.B. Fry at 251-6710.

For Sale-1968 Chev. Caprice, 4-dr., hdtp, black vinyl top, disc brakes, 327c:275 engine. Call 327-5280.

For Sale-1955 Buick Special, 4-door, excellent cond., $300; Westinghouse washer, $25; Magnavox console record player, AM-FM radio, $20; Singer sewing machine with cabinet, $25; Lawn mower, $7.50. Call 247-3578.

For Sale-Van, '62 Chev. Greenbrier. Excellent cond. Deluxe interior. Removable sleeping deck and storage drawer. Front-mounted spare and bike mount. Camping canopy. Auto-portable radio. $625 or best offer. Call Dale Martin, 243-5389.

HOUSING

For Rent-or lease, furnished, 10 months starting Sept. 1, 1500 sq. ft., 3-bdrm plus den, Cupertino area, 12 miles from Ames, call 257-2316.

For Sale-Condominium, modern 4-br., 2 1/2 bath. Excellent Santa Clara location $31,500, call 248-4690 or agent 732-7400.

Temporary Housing Wanted-Visiting Research Associate seeks fully furnished home for two week period, Aug. 23-Sept. 3, prior to return to England. Call Norman Chigier, at 326-8690.

For Sale-by owner, Strawberry Park Home, 3-bdrm, 1-bath, large family room, AEK. Close to schools and shopping centers. Excellent condition inside and outside. Two blocks from Hw 280 - 20 min. to Ames. $27,950. Call owner, 378-2002.

For Rent-Tahoe City cottage near lake and private beach area. Sleeps 6. Autumn rate $70/wk or $30/wknd. Post-Labor Day reservations only. 328-4642.

MISCELLANEOUS

Wanted-to buy used set of men's and/or women's golf clubs, G. Peterson 262-4129.

For Sale-10 foot Aluminum Boat, flat bottom with a 5 1/2 HP Evinrude engine. Five gallon tank included and 2 life jackets, $160. Call 266-0251.

For Sale-Dining Room set, 4 months old, one table with 3 leaves, 6 straight back chairs and 2 arm chairs, one large buffett, paid $500, sell for $350. Call 964-7289.

For Sale-Olympia electric typewriter, Model 50 less than one year old with Tiffany stand, both for $400. Vanity with mirror top $15. Electric guitar $65. Folk guitar, steel strings $13. Hawaiian guitar, stand and case $30. Call 379-2385.

For Sale-or trade, 1968 Honda 305cc "Superhawk" This motorcycle is an excellent street machine-fast and reliable. Partially customized. Looks and runs great. Will sell for $350 or trade for a dirt (or trail) bike of comparable value. Dick Gemoets, 732-8676.

For Sale-Lawn mower, B & S power, Pennsylvania 18" reel type $25. Motor scooter, Sears, Puch., extras, wheels and tires and engine, 71 misc. $55 call D. Regan at 245-0597.

For Sale-Sunbeam hand mixer, pink, excellent condition. $6. Call 252-1229 after 6.

For Sale-8 ply 7.50-16 studded snow tires mounted on 16" GMC split rims. Less than 500 miles on both. $100. 247-6143.

For Sale-Choice fresh or dried apricots call 243-7750 or 245-2345.

For Sale-$100, paneled camper shell for 6 ft. shell step-side pickup. Hehr windows, intercom, galvanized steel. Call 968-4155.

For Sale-Dog Barrier for station wagon, adjustable, chrome finished, new $25. Sears, 5,000 BTU window air conditioner $50. After 5 p.m., 738-3689.

For Sale-Color organ and control unit. 3 ft. x 2 ft. Screen. Call 961-0926.

Lost-Man's gold wedding ring. Initials "LLA-LTM 6-7-69" on inside. If found please return to Tom Morrison, Mail Stop 233-12 or phone 3371.

For Sale-Coldspot 17 cu. ft. Upright Freezer, Frost-free. Easy Delux washer and dryer, matched pink color. Figidaire portable dishwasher. Custom stereo - 30w FM/ampl., Sony tape deck, Garrard changer, twin shelf speakers. Matched, vinyl, 7ft. sofa and chair-beige. Sylvania 18" color T.V. Starter set golf clubs, bag, cart. Call 327-5280.